

WHAT IS CLAIMED IS:

1. An easily connected and separated columnar coupler structure comprising:

5 a first columnar coupler, for which a bolt is secured to a cylindrical joint end;

a second columnar coupler, for which a nut having a size that will fit over a male thread of the bolt is secured to a cylindrical joint end; and

10 a connection adaptor, shaped and sized so that both ends can engage said cylindrical portions of said columnar couplers, in which a bolt through hole is formed into said bolt is inserted, and on which an annular projection having a greater diameter than the inner diameters of said columnar couplers is provided at an intermediate portion,

15 wherein the columnar couplers are interconnected with the connection adaptor positioned in between.

2. An easily connected and separated columnar coupler structure according to claim 1, wherein, for said columnar couplers, hollow cylindrical portions are formed at least  
20 in the vicinities of joint ends so as to be closely fitted over ends of said connection adaptor.

3. An easily connected and separated columnar coupler structure according to claim 1 or 2, wherein at least one of said cylindrical portions of said joint ends has a circular  
25 cross section.

4. An easily connected and separated columnar coupler structure according to one of claims 1 to 3, wherein said small diameters at said ends of said connection adaptor

are formed and sized so that said ends can be fitted inside said ends of said columnar couplers; and wherein both of said ends are chamfered so that an assembly process can be easily performed.

5           5. An easily connected and separated columnar coupler structure according to one of claims 1 to 4, wherein said columnar coupler wherein said bolt is secured and said columnar coupler in which said nut is secured are fitted inside ends of hollow columnar members having appropriate  
10 lengths and shapes; and wherein said columnar couplers are connected by using said connection adaptor, so that coupling for an arbitrary number of said hollow columnar members is enabled.

          6. An easily connected and separated columnar coupler  
15 structure according to one of claims 1 to 5, wherein a material used for said connection adaptor is aluminum, reinforced plastic or foundry die casting.

          7. An easily connected and separated columnar coupler structure according to one of claims 1 to 6, wherein said  
20 hollow columnar members are legs for a table or other furniture, a flagstaff, a sign pole, a tent pole, or a measurement pole or another strut.